

wherein, in order to move [it] said arms from the position of rest (9) into the active position (10), each arm (5) has a face (12), internal to the body (2), designed to be subjected directly[, in the same way as an active face of a piston,] to the pressure of the drilling fluid flowing through the body (2).

2. **(Amended)** The hole opener as claimed in claim 1, wherein [the arm (5)] at least one of said arms (5) is mounted in such a way that [it] said at least one arm can slide parallel to itself in the body (2), so as to move from the position of rest (9) into the active position (10) [and vice versa].

3. **(Amended)** A hole opener as claimed in either of claims 1 [and] or 2, wherein, to move the arms from the active position (10) into the position of rest (9), the hole opener (1) comprises [means for] an elastically effective return for returning the arms (5) to the position of rest.

4. **(Amended)** A hole opener as claimed in [any of claims 1 through 3] claim 1, wherein each arm (5) is temporarily kept in the position of rest (9) [prior to a hole-opening operation,] by at least one pin (19) designed to break when the pressure of the drilling fluid flowing through the duct (4) exceeds a predetermined value [higher than a maximum usual boring value].

5. **(Amended)** A hole opener as claimed in [any of claims 1 through 4] claim 4, wherein [the arm] at least one of said arms (5) is mounted in the body (2) by means of an intermediate support (15) which acts as a housing for [the] said at least one arm (5) in the body (2) and which is fixed to [the latter] said at least one arm.

6. (Amended) A hole opener as claimed in claim 5, wherein the aforementioned pin (19) fixes [the] said at least one arm to [the] said intermediate support (15).
7. (Amended) A hole opener as claimed in [either of claims 5 and 6] claim 6, wherein the intermediate support (15), the at least one arm (5), the aforementioned [elastic return means] elastically effective return (13) and the pin (19) constitute an assembly (21) designed to be assembled in advance outside the body (2) and then installed [therein] in the body.
8. (Amended) A hole opener as claimed in [any of claims 4 through 7] claims 4 or 5, wherein the pin (19) comprises a region (19A) of calibrated weakness[, at the point or at each point of transition (20) where the pin (19) passes, as the case may be, either from the body (2) or from the intermediate support (15) into the arm (5)].
9. (Amended) A hole opener as claimed in [any of claims 1 through 8] claim 1, wherein on [its] an outer face, between two successive arms (5), the body (2) has a longitudinal passage (22) for returning drilling fluid, and a boss (23) arranged in this passage (22) so as to deflect the drilling fluid onto that part of the wall of the [hole] borehole on which the arms (5) are acting.
10. (Amended) A hole opener as claimed in [any of claims 1 through 9] claim 4, wherein the travel of [an] at least one arm (5) between the position of rest (9) and the active position (10) is limited by stops, and also by the pin (19) [where appropriate,] so that in the position of rest (9), [the] said at least one arm (5) is fully retracted into the body (2) and so that in the active position (10), [the] said at least one arm (5) sweeps through an area, the largest diameter of which area

is equal to between 1.05 and 1.3 times[, preferably 1.2 times,] the nominal diameter of a drill bit associated with the hole opener (1) for a combined drilling and hole-opening operation.

Respectfully submitted,



Carlos A. Torres
Reg. No. 24,264

Date: 03-08-00

Browning Bushman
5718 Westheimer, Suite 1800
Houston, TX 77057
Tel.: (713) 266-5593
Fax: (713) 266-5169

CERTIFICATE OF EXPRESS MAILING

I, Jan C. Lipscomb, hereby certify that this correspondence and all referenced enclosures are being deposited by me with the United States Postal Service as Express Mail with Receipt No. EL010850735US in an envelope addressed to Box Patent Application, Assistant Commissioner for Patents, Washington, DC 20231, on March 8, 2000.

By: Jan C. Lipscomb